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ABSTRACT

Over the past decade, there has been an increasing concern about the lack of health manpower to serve the U.S. population. The areas hardest hit by this shortage are the poverty areas in large cities and rural areas where 30% of the population but only 10% of the physicians live. Many Federal programs have begun to alleviate the problem of the health manpower shortage, especially since 1963 when the Health Professions Educational Assistance (HPEA) Program was enacted in Congress. In 1967, the Bureau of Health Manpower was formed by HEW to coordinate the health manpower training programs that were multiplying and expanding rapidly. In 1970, the Bureau adopted the name of the Bureau of Health Manpower Education and proceeded to carry out its main objective of improving the training and increasing the supply of health workers. To this end, the Bureau has set up a number of scholarship and loan programs in the areas of dentistry, veterinary medicine, nursing, and medicine. In addition, recruiting programs have been initiated to identify and recruit potential health care workers into the health education system. (HS)

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TRAINING THE NATION'S HEALTH MANPOWER

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HEALTH MANPOWER

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PREFACE

More than $2 billion has been spent by the Federal Government through the Bureau of Health Manpower Education and its predecessors to increase the number of health personnel and improve their training. Hundreds of new and renovated training facilities and thousands of additional graduates have resulted from this effort. The quality of health education has been enhanced. But the Nation is still faced with critical health manpower problems, particularly in underserved inner-city and rural areas, and the Bureau is committed more deeply today than ever to alleviating them.

Past efforts and current programs of the Bureau of Health Manpower Education to train the Nation's health manpower are described in this publication.

HEALTH MANPOWER PERSPECTIVE

America's health work force increased more than 50 percent in the 1960's and may climb almost 50 percent again in the 1970's. Today more than 4 million people are employed in approximately 200 health occupations, making health services one of the Nation's leading industries. Increases in health employment are expected to continue to outrun employment in most other industries. By 1980 almost 6.5 million people may be employed in health services.

Even more remarkable than the upsurge in health employment has been the mounting demand for health manpower.

Growing population, rising income, widening insurance coverage, advancing technology and soaring expectations are some of the factors that have lifted demand to new heights. The increase in health expenditures has been particularly striking.

In 1950 a citizen spent an average of $78 a year for health, and the Nation's health bill amounted to $12 billion or 4.6 percent of total goods and services produced. Between 1950 and 1960 expenditures for health doubled and from 1960 to 1970 they tripled. By Fiscal 1971 Americans were spending $75 billion yearly for health, about $358 a person. If present trends continue, the Nation will be spending as much as $189 billion ($814 a person) a year for health by 1980 – about 10 percent of the total amount of goods and services produced.

Thus, the health field faces the prospect of continuing strong demand for manpower despite a rapidly expanding work force.

The demand for skilled health manpower, which has reached a critical point, is not a new problem. It was severe enough almost a decade ago to justify Federal action. Through the Bureau of Health Manpower Education and its predecessors, the Government has spent more than $2

billion to improve health manpower training and increase the supply of health personnel. This effort has produced noteworthy accomplishments, but the goals still have not been attained. The unusual complexity of the problem can be seen in examining the supply of and demand for physicians and other health personnel.

Supply: Although there were about 330,000 physicians and 107,000 dentists in practice in this country in 1972, millions of Americans do not have ready access to health care. Forty-three counties have no registered nurse. More than 130 counties have no physician and at least 230 counties have no dentist. Hundreds of communities have neither a doctor nor a dentist.

If physicians were distributed according to the general population, there would be one for every 640 residents. But in more than 1,000 counties – one-third of the total – there is only one physician for every 1,900 or more residents.

Hardest hit by the uneven concentration of health professionals are rural and inner-city residents. In some areas of populous New York, for example, there is one private physician for every 200 residents, but in other areas there is only one for every 12,000. Thirty percent of the population but only 10 percent of the physicians live in rural America.

There is approximately one dentist for every 2,000 people, but in rural counties there may be only one dentist for as many as 4,000 residents.

Minority group members are affected with unusual severity by health manpower shortages. Their opportunities to enter the health professions have been limited. Eleven percent of the population but only 2 percent of the physicians were Black in 1970. About 3.6 percent of the registered nurses employed in 1970 were Black.

The number of general practitioners has declined sharply in recent decades. Today four of every five

physicians are specialists, and almost one of every three physicians is in a field involving surgery.

Demand: The U.S. population is growing at the rate of 1 percent a year, creating a rising demand for health services. By 1980 the population will number an estimated 230 million, 27 million more than in 1970.

Groups particularly in need of health care – the young, the old and minorities – are growing at a more rapid rate than the general population.

Demand is strongly influenced by rising expectations of care. Health care has come to be recognized as a right not a luxury. The scope of health services considered essential is being broadened every year.

More and more Americans are able to purchase health services as a result of rising incomes and an increasing number of private and public health plans. Government programs, particularly Medicare for the aged and Medicaid for the poor, are one of the most important factors in strengthening the demand for services. Federal spending for medical care increased 163 percent in the Fiscal 1966-71 period. In Fiscal 1971 the Government spent more than $28 billion for health, 38 percent of total expenditures. A national health insurance program, if enacted, would widen demand further.

DEVELOPMENT OF HEALTH MANPOWER EDUCATION LEGISLATION

Public concern about the shortage of physicians, dentists, nurses and other health workers has been mounting steadily since World War II. A series of high-level study groups outlined the problems in the 1950's and urged direct Federal aid to medical schools. In 1959 the Surgeon General's Consultant group on Medical Education recommended a 50 percent increase in the output of medical schools by 1975 to meet minimum requirements for physicians.

Congress enacted the Health Professions Educational Assistance (HPEA) Program in 1963, the first major legislation for the general support of education in the health professions. Earlier legislation had been aimed at specific fields. HPEA legislation authorized construction aid to schools of medicine, osteopathy, dentistry, optometry, pharmacy, podiatry, public health and nursing (collegiate) as well as loans to students of medicine, osteopathy and dentistry.

Operational support to health professions schools was authorized in the 1965 amendments to the HPEA Act. Basic improvement grants based on a statutory formula were provided to schools of medicine, osteopathy, dentistry, optometry and podiatry to upgrade the quality of education and encourage enrollment expansion. Special improvement grants were authorized to maintain or provide for accreditation or to maintain or provide for special educational programs of the school.

Forgiveness provisions for service in shortage areas were introduced into the loan program in 1965 for students of medicine, osteopathy, dentistry and optometry, and the loan program was extended to students of pharmacy and podiatry. Scholarships were provided for students in exceptional financial need.

Schools of veterinary medicine were included in HPEA construction grant and student loan programs under the Veterinary Medical Education Act of 1966.

A year after providing construction and student loan aid to health professions schools, Congress acted in 1964 to alleviate the shortage of nurses, the largest group of health workers. Half of all health workers are nursing personnel and more than one-third of these are registered nurses.

The Nurse Training Act of 1964 authorized nursing student loans, professional nurse traineeships, payments to diploma schools for a part of operating costs, grants to construct facilities and project grants to strengthen educational programs.

The growing importance of allied health workers in the provision of health care was acknowledged with the enactment of the Allied Health Professions Personnel Training Act of 1966. In 1900 one of every three health workers was a physician; today only one in 11 is a physician. Some of the severest shortages occur among allied health occupations.

The 1966 legislation was intended to help meet requirements for allied health personnel by improving and expanding training programs. It authorized grants to allied health training centers for construction of teaching facilities, for expansion and improvement of curriculums, for advanced training and for training new types of health technologists.

Greater Federal support of allied health education was authorized by the enactment of the Health Training Improvement Act of 1970. The legislation supports efforts to increase the number of allied health personnel, to improve coordination in training allied health manpower and to increase the number and quality of allied health educators, administrators, supervisors and specialists.

On November 18, 1971, the Federal commitment to the training of health manpower was raised to a new level with the enactment of the Comprehensive Health Manpower Training Act extended the HPEA program for three years and modified it, putting new emphasis on expanding enrollment in health professions schools, training family practitioners, increasing minority representation in the professions and alleviating shortages in underserved areas. The Nurse Training Act was enacted to increase the supply and improve the distribution of nurses.

BUREAU OF HEALTH MANPOWER EDUCATION FORMED

As the number of health manpower training programs multiplied in the Department of Health, Education, and Welfare (HEW), the Bureau of Health Manpower was formed on January 1, 1967, to coordinate this effort. Activities that had been carried on in various parts of the Public Health Service were grouped in the new Bureau.

Two divisions – Nursing and Dental Health – were transferred to the Bureau intact. Nursing traces its origin to the Public Health Service Nursing Program begun in 1933, Dental Health to the Dental Public Health Section formed in 1937 within the Division of Domestic Quarantine. The other three divisions – Physician Manpower, Allied Health Manpower, and Health Manpower Educational Services – were newly formed.

The Bureau became the major educational component of the National Institutes of Health on April 1, 1968.

In a reorganization on January 4, 1969, the Bureau was renamed the Bureau of Health Professions Education and Manpower Training. Its functions were broadened and its structure changed. The Bureau was then composed of seven divisions divided into two categories:

Institutional Development – Division of Education and Research Facilities, Division of Health Manpower and Educational Services and the Division of Research

Health Manpower Development – Division of Nursing, Division of Dental Health, Division of Physician Manpower and Division of Allied Health Manpower.

On September 18, 1970, the Bureau was given its present name and reorganized to align its structure more closely with authorizing legislation.

Major components of the Divisions of Physician Manpower and Educational and Research Facilities were merged into a new Division of Physician and Health Professions Education. The Division of Health Manpower Educational Services was abolished and its grants management functions were distributed among the divisions.

The Bureau's data gathering and analysis functions were consolidated in a new Division of Manpower Intelligence.

Three divisions – Nursing, Dental Health and Allied Health Manpower – were unchanged.

In Fiscal 1972 the Bureau of Health Manpower Education had 878 budgeted positions and appropriations of $673,600,000.

BUDGET HISTORY OF THE BUREAU OF HEALTH MANPOWER EDUCATION

Fiscal Year	Appropriation
1967	$374,903,000
1968	$406,413,000
1969	$275,600,000
1970	$372,292,000
1971	$429,227,000
1972	$673,600,000 *
1973	$532,655,000 **

* Construction funds for health professions schools to be obligated in 1973.

OFFICE OF THE BUREAU DIRECTOR

Through the Office of the Bureau Director and five operating divisions, the Bureau of Health Manpower Education carries out its objective of improving the training and increasing the supply of health workers. The Office of the Bureau Director consists of nine units.

The Office of Administrative Management is responsible for assuring that the Bureau's programs are managed effectively and economically.

The Office of Planning and Evaluation develops program objectives and assesses performance.

The Office of Grants Policy is the focus for the development and interpretation of policies, regulations and procedures related to the Bureau's grant and loan programs.

The Office of Special Assistant for Legislation advises on legislative developments affecting the Bureau.

The Office of Information conducts programs to inform professional groups and the public about the Bureau's activities.

The Regional Organization provides a focus for the Bureau's health manpower training activities in each of the 10 HEW regions.

In addition there are three program offices: Office of Special Programs, Office of Health Manpower Opportunity and Office of Audiovisual Educational Development.

OFFICE OF SPECIAL PROGRAMS

The Office of Special Programs was set up in December 1971 to improve the utilization and distribution of health manpower. It carries out programs authorized in the sections of the Comprehensive Health Manpower Training Act of 1971 pertaining to Health Manpower Education Initiative Awards and Computer Technology Health Care Demonstration Programs.

Area Health Education Centers: Under the Manpower Initiatives Program administered by this Office, support is available for the development of health education networks to train health workers needed in designated areas including rural and inner-city areas. These networks will usually take the form of Area Health Education Centers which would be medical school oriented but could include other arrangements. The networks would link health education and health service resources to provide clinical training for medical, dental, nursing and allied health students; training in the team approach; residencies in primary care; and continuing education.

Physician's Assistants: Programs for support of the training of physician's assistants for work in primary ambulatory care is another major activity of the Office of Special Programs.

Graduates would work primarily with family physicians, internists, pediatricians and obstetricians or in outpatient and emergency care facilities. Under the delegated authority of a licensed physician, a physician's assistant would perform such tasks as collecting and organizing information to help the physician arrive at a diagnosis, carrying out treatment prescribed by the physician and providing care for a limited range of conditions.

A program may be sponsored by a medical center, medical school, a health science center, school of allied health professions or a college. It must meet "minimum essentials" established by the American Medical Association's Council on Medical Education for training the physician's assistant-generalist.

Priority is given to proposed programs that build on previous training or experience of students and that recruit from underserved areas students who are likely to practice there. A project also must have the support of local primary care physicians and make provision for followup of graduates.

The Bureau's other physician's assistant authorities, which are shared by the Divisions of Allied Health Manpower, Nursing, Physician and Health Professions Education, and Dental Health, are coordinated by the Office of Special Programs.

Computer Studies: The Office of Special Programs supports projects to explore the capabilities of computer technology and other methods to perform task analysis of the work done by physicians to determine which tasks can be delegated to trained helpers.

Support also is authorized for projects to plan, develop and establish computer laboratories to set standards for systems to enable use of computer technologies by physicians and other health personnel in the provision of health services and the processing of related biomedical information.

OFFICE OF HEALTH MANPOWER OPPORTUNITY

The Office of Health Manpower Opportunity, formed in November 1971 to administer a part of the Health Manpower Education Initiative Awards section, strives to increase the enrollment in health professions schools of disadvantaged students and students likely to practice in shortage areas.

The Office directs its efforts toward four groups of special concern: Black Americans, American Indians, Spanish-surnamed Americans and women.

Special Health Career Opportunity Grants are awarded for projects to identify and enroll in health professions schools persons likely to practice in a rural or other shortage area.

Any public or nonprofit private health or education entity is eligible to apply for a Special Health Career Opportunity Grant.

Grants also are awarded to identify disadvantaged persons with potential for training and to assist them in enrolling in health professions schools and completing their education.

OFFICE OF AUDIOVISUAL EDUCATIONAL DEVELOPMENT

The Office of Audiovisual Educational Development, in cooperation with the National Medical Audiovisual Center of the National Library of Medicine, serves as a focal point for efforts to investigate and promote the use of technological advances in the development of audiovisual materials for health sciences education.

The Office draws upon the Bureau's experience to identify major educational needs in the health professions and uses the resources of the National Medical Audiovisual Center in attempting to solve them through audiovisual techniques. The Office is located in the Center at Atlanta, Georgia.

Education research and training activities are among the Office's primary concerns. Support is given to projects encouraging cooperative curriculum design and the development of ways for educational institutions to share information, staff and educational materials.

Another objective is to identify and acquire film and videotape materials that deal with training in the health occupations.

The Office staff also supports activities that encourage health sciences schools to use proven instructional methods in curriculum design, materials development and training environment construction.

KEY PERSONNEL

Office of the Bureau Director

Director, Kenneth M. Endicott, M.D.

Deputy Director, Peter L. Eichman, M.D.

Associate Director for Legislation and Field Coordination, Charles H. Boettner, M.D.

Regional Operations Officer, Rodney J. Badgewick.

Associate Director for Program Implementation, Daniel F. Whiteside, D.D.S., M.P.H.

Associate Director for Policy Studies, Eugene A. Confrey, Ph.D.

Associate Director for Planning and Evaluation, David Tilson.

Special Assistant for Graduate and Post-Graduate Education, Louis M. Rousselot, M.D.

Special Assistant for Legislation, Elizabeth A. Chase, LL.B.

Special Assistant for Youth Affairs, Raymond L. Sattler, Phar.D.

Executive Officer, Robert E. Learmouth.

Chief, Financial Management Staff, John P. Buckley

Chief, Personnel Staff, Sue P. Rector

Chief, Contract Staff, Mary E. Barclay

Chief, Office of Grants Policy, William M. Koenig.

Director, Office of Health Manpower Opportunity, George Blue Spruce, Jr., D.D.S., M.P.H.

Director, Office of Special Programs, Douglas A. Fenderson, Ph.D.

Chief, Office of Audiovisual Educational Development, George E. Mitchell, D.M.D., M.P.H.

Director, Office of Information, Morton A. Lebow.

HEALTH PROFESSIONS

The main effort to improve the training of physicians and other health professionals and increase their number is carried on by the Division of Physician and Health Professions Education. Most of the funds spent by the Bureau from its formation in 1967 through Fiscal 1971 have gone into the Health Professions Educational Assistance Program administered by the Division. All schools of the health professions – medicine, osteopathy, dentistry, optometry, pharmacy, podiatry and veterinary medicine – are eligible for various types of support under the HPEA program.

The Federal Government awarded about $1.4 billion to health professions schools under the HPEA program during Fiscal 1966 - 71. The largest part, about $800 million, was awarded in construction grants to 149 health professions and public health schools for teaching facilities. These funds have aided in construction of 23 new schools and renovation of 126 others.

In the health professions and public health schools, about 5,300 new first-year places – some already occupied and others to open later – are attributable to Federal construction funding. More than 11,000 other first-year places have been maintained through renovation of facilities.

More than $540 million of the construction total was awarded to 73 medical schools and related teaching hospitals. This will result in an increase of 2,695 first-year places and maintenance of 5,583 other first-year places.

About $173 million in construction funds was awarded to 35 dental schools during this period, resulting in the opening of 1,123 more first-year places and the maintenance of 2,401 others.

The number of medical schools and students has climbed dramatically since the HPEA program began. Sixteen new schools of medicine and osteopathy were opened in the 1960's, more than had opened in the preceeding 40 years. In 1970 there were 110 U.S. schools of medicine and osteopathy. At least 16 more schools are being developed in the current decade.

The number of first-year students of medicine and osteopathy will have jumped over 50 percent during the first decade of the program, from 9,200 in 1963 to an estimated 14,500 in 1973-74. The number of medical graduates will have risen about 60 percent over this period, from 7,700 to an estimated 12,400.

During this 10-year period the number of first-year dental students will have increased 42 percent (from 3,770 to 5,369) and the number of dental graduates will have risen 41 percent (from 3,213 to 4,516).

Federal aid in the form of basic formula and special project grants for institutional operations also has been important in promoting expansion and improvement of health professions schools.

Almost $175 million in special project grants was awarded to health professions schools during Fiscal 1968-71. Most of these funds were used to help schools in financial difficulties.

Special project grants also were awarded to finance curricular improvements including development of new teaching methods, shortening training periods and establishing family medicine and minority recruitment programs.

About $200 million in institutional or formula grants was awarded to health professions schools from Fiscal 1966 through 1971. A total of 267 schools received such grants in Fiscal 1971. Although a recipient was required to increase enrollment unless a waiver was obtained, each school could use grant funds as administrators deemed proper to advance its educational program. These funds were used to add faculty and supporting staff, acquire necessary equipment and defray costs of expansion.

An estimated $198 million, 14 percent of total HPEA expenditures through Fiscal 1971, was allocated for student aid. Student loans amounted to about $145 million in this period. In Fiscal 1971 $24.8 million was allocated for HPEA loans, assisting about 22,000 students.

HPEA scholarships in this interval amounted to $53 million. In Fiscal 1971 $15.5 million was allocated for HPEA scholarships, assisting about 20,000 students.

In Fiscal 1971, 20 percent of students attending health professions schools received scholarships and 27 percent received loans. The proportion of students receiving loans that year varied from a low of 25 percent in medicine, dentistry and pharmacy to a high of 42 percent in optometry.

In recent years there has been an increase in the proportion of minority students in the health professions schools. The percentage of Blacks in the first-year class of medical schools rose from 3 percent in 1968-69 to 7 percent in 1971-72. The percentage of women in the first-year class advanced from 8 percent to 14 percent in this period.

The effects of health manpower education support can be assessed only over a comparatively long period of time. The interval from the initial planning for a new health professions school to the admission of the first student may be five years, and an additional four to nine years may be required to train a specialist. Many Bureau programs of support to schools are still gaining momentum and the major impact will not be evident until the latter part of this decade.

U.S. HEALTH PROFESSIONS SCHOOLS AND STUDENTS

	Schools		First-Year Students		Graduates	
	1964-1965	1972-1973	1964-1965	1971-1972*	1964-1965	1971-1972
Medicine	88	113	8,856	12,370	7,409	9,617
Osteopathy	5	7	472	670	395	491
Dentistry	49	57	3,836	4,752	3,181	3,951
Optometry	10	12	593	906	377	683
Pharmacy	74	73	4,483**	6,633**	3,388	4,900
Podiatry	5	5	177	399	122	286
Veterinary Medicine	18	18	1,139	1,452	874	1,252
Totals	249	285	19,556	27,182	15,746	21,180

* In 1971 - 72 Full-time students only.
** First of the last three years.

The surge in construction and enrollment has been accompanied by a quiet revolution in health education. Medical and dental schools are modifying training to meet the needs of the future. Some of the trends in medical and dental education are:

- Shortening of the undergraduate curriculum;
- Stress on individualized training and self-instruction;
- Earlier and more extensive contact with patients;
- Emphasis on working as a member of a health team; and
- Deeper involvement of health schools in delivering care to the community.

Changes are evident in the training of all health professionals.

Some of these changes are being spurred by the Comprehensive Health Manpower Training Act of 1971. Most sections of this Act are administered by the Division of Physician and Health Professions Education. The principal programs are:

Capitation: Basic support grants to health professions schools on a per-student basis requiring enrollment increases and encouraging curriculum acceleration and training of assistants. Schools exceeding mandatory enrollment increases are eligible for special bonus payments. To receive a capitation grant, a school must submit a plan to carry out projects in at least three of nine legislated categories. The categories are similar to the purposes for which special project grants and contracts are awarded.

Special Project: Competitive grants and contracts to support projects to (1) make curricular improvements including the shortening of training; (2) develop interdisciplinary training including use of the team approach; (3) train new types of personnel including physician's assistants; (4) make innovative changes in educational programs; (5) undertake advances in fields related to health professions education; (6) assist in improving the supply and distribution of health professionals; (7) establish in appropriate schools training in clinical pharmacology, alcohol and drug use, nutrition and assessment of therapeutic regimens; (8) increase enrollment of students likely to practice in shortage areas; (9) increase enrollment of students from low income or minority families; (10) plan experimental teaching programs or facilities; (11) provide preceptorship training in family medicine and other shortage fields; (12) use health personnel more efficiently with the aid of computer technology; and (13) encourage more effective approaches to organization and delivery of care.

Construction: Grants, loan guarantees and interest subsidies to improve and increase health professions teaching facilities. A grant of up to 80 percent of eligible construction costs may be awarded to an accredited public or private nonprofit health professions school or graduate public health school. Private nonprofit schools are eligible for loan guarantees and interest subsidies. Guarantees apply to not more than 90 percent of construction costs or 90 percent of loss of principal and interest on the loan. Interest subsidies may reduce by not more than 3 percent yearly the net effective interest rate otherwise payable on construction loans.

Financial Distress: Grants to health professions schools in financial straits to meet costs of operation or accreditation requirements. Recipient schools are required to disclose pertinent financial data and undertake reforms.

Start - Up: Grants to new schools of medicine, osteopathy or dentistry planning to enroll at least 24 students. Qualifying schools receive grants in the year preceding the first year of enrollment and for the first three years of operation.

Conversion: Grants for two-year schools of medicine converting to an M.D. degree granting institution. Qualifying schools must be affiliated with an accredited hospital in the fiscal year of the grant.

Student Loans: Loans up to $3,500 a year to enable full-time students in financial need to pursue studies leading to the first professional degree in a health profession. Up to 85 percent of all professional educational loans may be paid by HEW if a graduate agrees to practice for three years in a shortage area. The Government also will pay a loan made to a student from a low income or disadvantaged family if he fails to complete his professional education.

Scholarships: Scholarships up to $3,500 a year to enable full-time students in exceptional financial need to pursue studies leading to the first professional degree in a health profession.

Family Medicine: Grants to hospitals for approved training in family medicine.

Teacher Training: Grants to health professions schools for the preparation of teaching personnel. Training may be conducted at a trainee's school or elsewhere.

These programs are carried out through the Office of the Division Director and three branches: Physician Education Branch; Dental Education Branch; and Optometry, Pharmacy, Podiatry, Veterinary Medicine Education Branch. Each branch administers all the programs that affect the disciplines within its purview.

KEY PERSONNEL

Division of Physician and Health Professions Education

Director, Harry W. Bruce, Jr., D.D.S.

Associate Director, Marvin R. Dunn, M.D.

Assistant Director for Administration, Donald C. Parks.

Acting Chief, Physician Education Branch, Robert Knouss, M.D.

Chief, Dental Education Branch, Sherman L. Cox, D.D.S.

Chief, Optometry, Pharmacy, Podiatry, Veterinary Medicine Education Branch, Nathan Watzman, Ph.D.

Chief, Grants Management Staff, John R. Westcott.

Acting Chief, Resources Staff, James D. Durham

NURSING

The Divison of Nursing strives to increase the number of well-trained registered nurses in practice and improve the quality of care they give to patients.

More than $380 million was spent from Fiscal 1965 through 1971 to advance the training of registered nurses. During this period the number of nursing program graduates annually increased from 34,686 to 47,000. On January 1, 1972, there were about 748,000 registered nurses in practice, a ratio of 361 nurses for every 100,000 residents.

Of the 1971 graduates, 22,334 received diplomas, 14,754 associate degrees and 9,913 baccalaureates. The number of hospital-based diploma programs, which produced almost half the 1971 graduates, is declining. However, the two types of college programs, especially the associate degree training offered at community colleges, are growing so rapidly that the number of nursing graduates has increased consistently. In 1970 there were 587 diploma, 491 associate degree and 285 baccalaureate programs.

About half the expenditures during Fiscal 1965-71 went to students. Almost $123 million was allocated for loans and scholarships to needy nursing students. About $68 million was awarded under the Professional Nurse Traineeship Program to 48,000 registered nurses to assist them in preparing or improving their preparation for positions as teachers, supervisors, administrators or clinical specialists.

More than $97 million was awarded during Fiscal 1965-71 to build, replace, modernize, expand and equip nurse teaching facilities. These awards resulted in the addition of 6,200 new first-year places and maintenance of 20,000 others.

Assisted by almost $34 million in Federal funds during the Fiscal 1965-71 period, nursing schools and educational

organizations undertook 343 special projects to improve the quality of nursing education. Support was given to projects to:

- Prepare nurses for expanded roles;
- Improve and update nursing curriculums;
- Start new nursing schools;
- Assist schools in financial straits;
- Establish programs geared to disadvantaged students;
- Provide remedial services for disadvantaged students; and
- Recruit practical nurses, medical excorpsmen, policemen, firefighters and others into nurse training.

About 250 research projects have been undertaken to expand the scientific basis of nursing practice and 673 registered nurses have undertaken graduate study to prepare for research in nursing and basic sciences related to nursing practice. More than $20 million was awarded to support these research efforts through Fiscal 1971.

Ten nonprofit agencies with special capabilities in community organization and services have received about $1 million to recruit into nurse training students who in the past have not considered nursing as a career. Recruitment activities also have been directed toward men and toward persons with some previous health service experience such as practical nurses.

Studies are conducted to determine nursing manpower and educational needs and to improve staffing patterns. These studies include national inventories of registered and licensed practical nurses, periodic surveys of public health and community nursing services and a survey to determine the clinical contribution and educational needs of nurses employed in private medical practice.

The Division of Nursing carries on its activities through the Office of the Director and four Branches. A nurse consultant represents the Division in each of the 10 HEW regions.

Under the Nurse Training Act of 1971, administered by the Nursing Education Branch, the Division conducts nine major programs. These are:

Capitation: Basic support grants to nursing education programs on a per-student basis. Differentials are authorized to encourage expansion of enrollment and preparation of nurse practitioners. Schools exceeding mandatory enrollment increases are eligible for special bonus payments. To receive a capitation grant, a school must submit a plan to carry out projects in at least three of eight specified categories. The categories are similar to the purposes for which special project grants and contracts are awarded.

Special Project: Grants and contracts for projects to (1) promote cooperative training arrangements; (2) train new types of personnel including pediatric nurse practitioners; (3) develop interdisciplinary training; (4) improve supply, distribution and utilization of nurses; (5) improve curriculums; (6) undertake research in fields related to nursing education; (7) develop new or modify existing nurse training programs; (8) increase educational opportunities for disadvantaged students; (9) provide continuing education; (10) retrain inactive nurses who wish to resume their profession; (11) otherwise strengthen training programs; and (12) improve the supply and distribution of nurses needed for preventive health care and other purposes.

Construction: Grants to assist in construction, expansion, replacement or renovation of teaching facilities for nurse training programs. Guarantees and interest subsidies on non-Federal construction loans are available to nonprofit, private nursing schools.

Financial Distress: Grants to nursing schools in financial straits to meet costs of operation or accreditation requirements. Recipient schools are required to disclose pertinent financial data and undertake reforms.

Start - Up: Grants to assist in meeting the cost of developing new nurse training programs. In considering

applications the Division takes into account the number of students proposed for enrollment and other resources available to the program.

Traineeships: Support for advanced training of registered nurses to become teachers, administrators, supervisors or nurse specialists.

Student Loans: Loans up to $2,500 a year for full-time or half-time students. Forgiveness of up to 85 percent of all nursing education loans for full-time employment for three years as a nurse in a shortage area. Forgiveness of loans to students from low income or disadvantaged families if the students are unable to complete nursing studies.

Scholarships: Scholarships of up to $2,000 a year for full-time or half-time students.

Recruiting Individuals with Potential: Grants and contracts to identify individuals with potential for training, to assist them in enrolling in nursing school and to help them complete training. These individuals include disadvantaged persons and military veterans with experience or training in the health field. Support also is available to publicize sources of financial aid for nursing students.

The Manpower Evaluation and Planning Branch is concerned with manpower analysis, community planning , and statistical standards and methodology. The nursing aspects of the care of individuals, families and groups within the community are the concern of the Nursing Practice Branch. The Nursing Research Branch conducts research activities at headquarters and at the Nursing Research Field Center, San Francisco, California.

KEY PERSONNEL

Division of Nursing

Director, Jessie M. Scott, R.N., M.A.

Deputy Director, Julia P. Brandeberry, R.N., M.P.H.

Assistant Director, Gretchen A. Osgood, R.N., M.S.

Associate Director for Regional Affairs, (vacant).

Special Assistant to the Director, Edith N. Rathbun

Assistant Director for Administration, Raymond Blackburn, Jr.

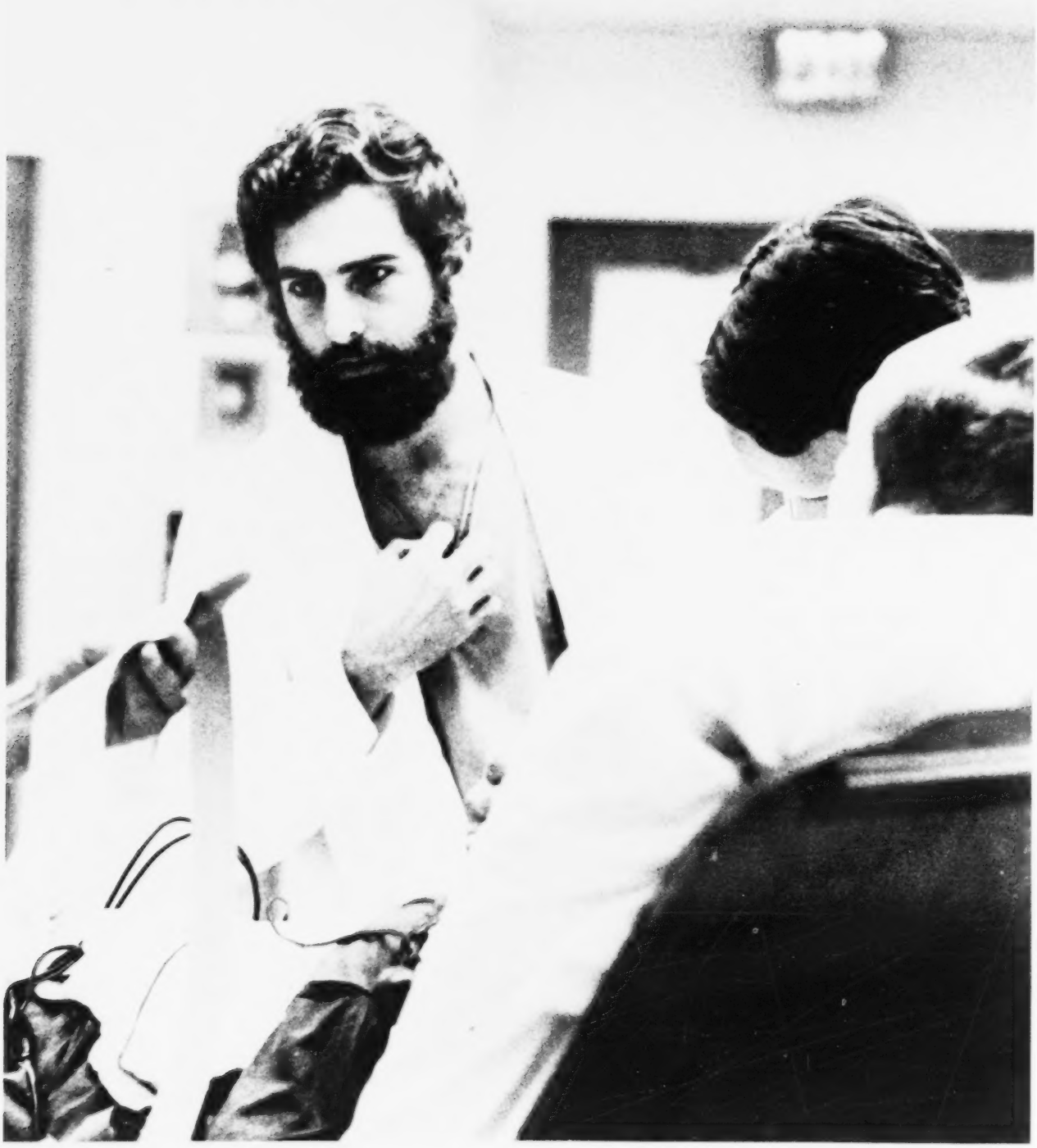
Information Officer, Norma Golumbic, M.S.

Chief, Manpower Evaluation and Planning Branch, Eugene Levine, Ph.D.

Chief, Nursing Education Branch, Mary Snyder Hill, R.N., B.S.N., Ph.D.

Chief, Nursing Practice Branch, Doris E. Roberts, R.N., Ph.D.

Acting Chief, Nursing Research Branch, Susan Gortner, R.N., Ph.D.



ALLIED HEALTH AND PUBLIC HEALTH

The Division of Allied Health Manpower is concerned with improving the quality of allied health and public health education and increasing training opportunties.

Almost $64 million was spent from Fiscal 1967 through 1971 to improve allied health professions training opportunities. Examples of the many allied health professions are: medical laboratory technologists and technicians, dietitians and dietary technicians, occupational therapists and occupational therapy assistants, and medical record administrators and medical record technicians. There are more than 3,000 allied health programs and the number is growing rapidly. In 1971 allied health professions programs were offered by more than 700 universities and senior colleges and 520 community colleges. In recent years there has been a marked trend toward formation of separate schools of allied health professions within colleges and universities and other educational institutions. Since Federal funding for allied health professions education was authorized, the number of allied health professions schools has jumped from 13 in 1966 to 80 in 1972.

Most Allied Health program expenditures, $42 million, were awarded for institutional development in the first five years of the program. These funds have been used to pay faculty, buy equipment and acquire other items needed to strengthen allied health training. Enrollment in schools receiving these grants increased from 12,286 in 1967 to 26,166 in 1971.

Special project grant awards were begun in 1971 and about $4.5 million was awarded during the first year of the program. These funds have been used to start new allied health training programs, devise new applications of educational technology and develop more effective educational organizations.

About $8.5 million was awarded through Fiscal 1971 for advanced training in the allied health professions. About 550 students were supported in long-term training in 1971 for careers as allied health teachers, administrators,

supervisors or nonresearch specialists. Support also was given that year to 2,600 students attending shorter institutes to improve teaching, administrative or supervisory skills.

The Public Health Professions program was authorized in 1957. From Fiscal 1967 through 1971, $40 million in public health traineeships, $23 million in public health project grants and $22 million in formula grants – a total of $86 million – were awarded for public health training. All three types of awards went to schools of public health but project grants and traineeships also were received by other schools and institutions. In 1971 there were 17 public health schools, four established in the 1966-71 period.

Formula grants support the educational programs in schools of public health. Project grants to schools of public health and other institutions providing graduate training in public health are designed to strengthen public health curriculums and to make public health training opportunities responsive to changing public health manpower needs.

About 1,500 students received traineeships in 1971 for public health training leading to an advanced degree. About 4,500 others received support for short-term training in special public health skills. About 600 medical and dental students were supported in public health traineeships and 70 physicians and dentists in public health residencies.

The Division also is striving to reduce barriers to career options in allied health fields. In 1971 the Division sponsored a conference on certification in allied health professions which brought professional organizations together for the first time to discuss health manpower certification issues. The Division also is exploring other ways of credentialing which recognize the competence of health personnel regardless of how it is achieved.

The Division of Allied Health Manpower is organized into four units: Allied Health Professions Branch, Public Health Professions Branch, Program Operations Branch and Office of the Director.

The Allied Health Professions Branch administers four programs:

Special Project: Grants to develop projects that will contribute to improvement or strengthening of allied health professions training programs. Public and nonprofit private agencies, institutions and organizations are eligible for awards. Special attention is given to programs for such groups as disadvantaged persons or persons reentering the allied health fields.

Special Improvement: Grants to eligible allied health professions training centers to provide, maintain or improve specialized functions including enrollment expansion and curriculum improvement.

Advanced Traineeship: Grants to increase the number of allied health professions personnel who have special competence as teachers, administrators, supervisors or nonresearch specialists.

Training Institute: Grants to provide postprofessional training opportunities of less than one academic year to increase capabilities of allied health professionals as educators, administrators, supervisors or nonresearch specialists.

The Public Health Professions Branch administers three programs:

Formula: Grants to provide schools of public health with basic support for training programs.

Graduate Public Health Training: Project grants to improve and expand specialized public health training at the graduate level.

Public Health Traineeship: Grants to increase the number of qualified public health personnel.

The Program Operations Branch provides management support for Division programs.

The National MEDIHC (Military Experience Directed Into Health Careers) Coordinator in the Office of the Director works with State MEDIHC agencies in helping ex-military corpsmen find jobs and educational opportunities in the health field.

KEY PERSONNEL

Division of Allied Health Manpower

Director, Thomas D. Hatch.

Executive Officer, Joel R. Hedetniemi.

Associate Director for Program Planning and Evaluation, David B. Hoover.

Associate Director for Professions Development, Joseph Kadish, Ed.D.

Chief, Office of Special Studies, Maryland Y. Pennell.

National MEDIHC Coordinator, Alice B. Frazer.

Information Officer, Laura Mae Kress.

Chief, Program Operations Branch, William S. Brooks.

Chief, Allied Health Professions Branch, Merrill B. DeLong, O.D.

Acting Chief, Public Health Professions Branch, Fred J. Payne, M.D.

DENTAL HEALTH

The Nation's primary focus for dental health manpower and service activities is provided by the Division of Dental Health. Responsibility for the Division's program activities is divided among four branches of the Division corresponding to four major program areas: education development, manpower studies, preventive practices and care development. Staff are located at headquarters in Bethesda, Maryland; at the Dental Health Center in San Francisco, California; at the Dental Manpower Development Center in Louisville, Kentucky; and in each of the 10 HEW regional offices.

Education Development: Programs are conducted to increase the supply of dental manpower by increasing the efficiency and productivity of dental personnel and improving the quality and effectiveness of dental education. Among the Division's principal efforts has been the Dental Auxiliary Utilization (DAU) program of training a dental student to work efficiently with a chairside assistant. The Division provided financial support to these dental school training programs through Fiscal 1972. Every U.S. dental school had a DAU training program by 1972 and the American Dental Association's Council on Dental Education required DAU courses for accreditation of dental schools. More than one-third of today's practicing dentists have been trained in DAU.

In 1972 the Division began placing primary emphasis on Training in Expanded Auxiliary Management (TEAM), an outgrowth of the DAU program. TEAM resulted from studies conducted at the Division's Dental Manpower Development Center where it was demonstrated that a dentist working with four specially trained auxiliaries could achieve a level of production 130 percent greater than a dentist working with only one assistant. Under the TEAM program the dental student is taught to manage a team of auxiliaries who are trained to do a large number of procedures traditionally performed by the dentist. The first TEAM grant awards were made during Fiscal 1972, and by the end of Fiscal 1973 TEAM programs are expected to be in operation in about 20 dental schools.

To augment the manpower supply, efforts are being made to attract young people, especially minority group members, to careers in the dental health field.

Continuing education systems are being developed to enable graduate dentists to keep up with advances in dentistry. A series of programs on a variety of dental subjects is currently being televised to dentists in Minnesota, Iowa, Nebraska, North Dakota and South Dakota.

Manpower Development: Since 1965, the Division has worked with the American Association of Dental Examiners to develop a National Data Compilation System on Dental Manpower. A compilation of State Dentists Manpower Reports, based on the first dentist survey, has been published and data from the second national survey of dentists was scheduled to be published in 1972. Statistical handbooks on dental hygienists have been completed for 47 participating States. The Division is currently preparing a register, which will be updated annually, of all dentists and dental hygienists licensed in the 50 States and the District of Columbia.

Preventive Practices: As part of the Division's preventive efforts, a national campaign has been launched against periodontal (gum) disease, a major cause of tooth loss in adults. School and patient dental health education programs have been undertaken to encourage proper oral hygiene.

Strong support has been given to fluoridation as the most effective means of preventing tooth decay. In the 1966-71 period there was an increase in the number of States with mandatory fluoridation from one to seven and the number of elementary schools conducting fluoridation programs from two to twenty-one. About 95 million residents living in 5,000 communities were drinking fluoridated water in 1971 compared to 62 million in 3,140 communities in 1966.

Care Development: In search of improved systems of dental care, the Division evaluates various methods of organizing and financing services. Quality control methods are being studied.

KEY PERSONNEL

Division of Dental Health

Director, John C. Greene, D.M.D., M.P.H.

Deputy Director, Merrill W. Packer, D.D.S., M.S.D.

Assistant Director for Special Projects, Jack R. Vermillion, M.P.H.

Assistant Director for Regional Office Operations, Thomas L. Louden, D.D.S.

Executive Officer, Edward J. Dyer.

Chief, Office of Administrative Services, Rancher C. Preddy.

Chief, Office of Communication Services, Mary N. Gailbreath.

Chief, Office of Planning and Evaluation, Ruth D. Bothwell.

Chief, Office of Social and Behavioral Analysis, Lois K. Cohen, Ph.D.

Chief, Office of Technical Services, George L. Crocker, D.D.S.

Acting Chief, Care Development Branch, Jerry L. Gribble, D.D.S.

Chief, Education Development Branch, Dale W. Podshadley, D.D.S.

Chief, Preventive Practices Branch, William B. Bock, D.D.S.

Chief, Manpower Development Branch, Kent L. Angerbauer, D.D.S.

MANPOWER INTELLIGENCE

As the emphasis increased on educating an adequate supply of health manpower to meet the requirements for health care, it became essential to provide a focal point for the collection and analysis of data on all facets of the Nation's health manpower resources and requirements. When the Bureau of Health Manpower Education was reorganized in the fall of 1970, the Division of Manpower Intelligence was created to consolidate and improve these functions and to provide a focal point for the Bureau and the Department of Health, Education, and Welfare.

Working with other Bureau units, Federal agencies and professional associations, the Division compiles data and analyzes the number and distribution of the current health manpower pool. The Division's Manpower Resources and Requirements Branch works to establish data bases for those occupations for which accurate data are presently unavailable and attempts to enhance the comparability of information among these occupations. This Branch also develops projections of the health manpower requirements necessary to meet anticipated needs of the Nation under alternate systems of health care delivery.

To improve the technology for projecting requirements and analyzing resources, the Research and Development Branch conducts and sponsors studies designed to adapt statistical methodology, systems analysis, econometrics and operations research techniques to the health manpower field.

To provide an accurate profile of health personnel being prepared for future jobs, the Program Analysis and Reports Branch maintains comprehensive data about health manpower training institutions. It conducts studies of data on the characteristics of applicants, students and nonmatriculants. This Branch also provides information about Bureau programs and prepares statistical and analytical studies for the Bureau.

The Data Systems Branch provides the Bureau with technical consultation on data collection and analysis as well as data processing, storage and retrieval services.

The National Center for Health Manpower Information within the Division provides liaison with other Federal agencies and HEW regional offices. It compiles data on the Federal programs which support health manpower training and development and maintains an informtion exchange with regional and State health manpower organizations. The Center also maintains the Bureau library.

KEY PERSONNEL

Division of Manpower Intelligence

Director, William A. Lybrand, Ph.D.

Special Assistant to the Director, John C. Dalton, Ph.D.

Assistant Director for Data Standards and Clearances, Frank A. Morrone, Jr.

Assistant Director for Administration, Clifford Allen.

Assistant Director for Program Planning, Development and Evaluation, Robert A. Fordham.

Chief, Office of International Health Manpower Studies, Betty A. Lockett, Ph.D.

Chief, Program Analysis and Reports Branch, (vacant).

Chief, Manpower Resources and Requirements Branch, Howard V. Stambler.

Chief, Data Systems Branch, Leonard Sokolower.

Chief, Research and Development Branch, Steven E. Bollt, Ph.D.

Chief, National Center for Health Manpower Information, (vacant).

LEGISLATIVE CHRONOLOGY

September 24, 1963 – *Health Professions Educational Assistance Act of 1963* (P.L. 88 - 129) authorized grants to build, expand or improve teaching facilities for schools of medicine, dentistry, nursing, osteopathy, optometry, pharmacy, podiatry and public health; and loans for students of medicine, dentistry and osteopathy. It also established the National Advisory Council on Education for Health Professions.

September 4, 1964 – *Nurse Training Act of 1964* (P.L. 88 - 581) authorized grants to build, expand or improve schools of nursing; funds for nursing student loans; professional nurse traineeships; payments to diploma schools of nursing; and project grants to improve nurse training. It also established the National Advisory Council on Nurse Training.

October 22, 1965 – *Health Professions Educational Assistance Amendments of 1965* (P.L. 89 - 290) authorized improvement grants to schools of medicine, dentistry, osteopathy, optometry and podiatry; and scholarship grants for students of medicine, dentistry, osteopathy, optometry, pharmacy and podiatry. It also established the National Advisory Council on Medical, Dental, Optometric and Podiatric Education.

November 2, 1966 – *Veterinary Medical Education Act of 1966* (P.L. 89 - 709) authorized schools of veterinary medicine to participate in the Health Professions Educational Assistance construction and student loan programs.

November 3, 1966 – *Allied Health Professions Personnel Training Act of 1966* (P.L. 89 - 751) authorized grants to build teaching facilities for allied health training centers; basic and special grants for improving allied health curriculums; advanced traineeships for the training of teachers, supervisors, administrators and allied health clinical specialists; and project grants for the development of new methods for the training of new types of health technologists. It amended the Nurse Training Act to authorize nursing educational opportunity grants for nursing students of exceptional financial need and contracts to encourage full utilization of nursing educational talent. It also established revolving funds for loans to health professions schools and to schools of nursing to provide capital for loans to students.

August 16, 1968 – *Health Manpower Act of 1968* (P.L. 90 - 490) extended and modified the Health Professions Educational Assistance Act, the Nurse Training Act and the Allied Health Professions Personnel Training Act. Significant modifications included a revised formula for institutional support of health professions schools, a broadened special project grant authority to such schools, the addition of schools of pharmacy and veterinary medicine to institutions eligible for such grants, a new formula grant for support of schools of nursing and a new scholarship program for nursing students.

March 12, 1970 – *Public Law 91 - 208* extended three sections of the Public Health Service Act relating to public health training and made them coterminous on June 30, 1973. These were: section 309(c) authorizing formula grants to schools of public health, section 309(a) authorizing project grants to public or nonprofit institutions providing graduate or specialized training in public health and section 306 authorizing grants for traineeships for graduate or specialized training in public health.

November 2, 1970 – *Health Training Improvement Act of 1970* (P.L. 91 - 519) was enacted. Title I provided for special funds to assist medical and dental schools in serious financial difficulties and modified the institutional grant program to be responsive to new health professions schools. Title II extended programs for the improvement and strengthening of allied health professions training through June 30, 1973.

November 18, 1971 – *Comprehensive Health Manpower Training Act of 1971* (P.L. 92 - 157) authorized substantial support for new and continuing programs designed to alleviate the health manpower shortage. The Act provided for: capitation grants for health professions schools meeting mandatory increases in enrollment; initiative awards to alleviate manpower shortages in designated areas and to assist in recruitment of students; start - up grants for new schools; loan guarantees and interest subsidies on non-Federal construction loans; separate grants for schools in financial distress; and modified authority for special project grants and contracts to expand or improve training in the health professions. It raised the maximums for loans and scholarships to students of the health professions and for the Federal share of new health school construction. It also authorized new programs of aid for training in family medicine and for training of health professions teahers.

November 18, 1971 – *Nurse Training Act of 1971* (P.L. 92 - 158) extended and widened nurse training authority. The legislation provided for: capitation grants for nursing schools; special project grants and contracts to improve nurse training; start-up grants for new schools; separate grants for schools in financial distress; construction grants; loan guarateees and interest subsidies on non-Federal construction loans; higher maximum amounts for loans and scholarships to nursing students; professional nurse traineeships; and a broadened program of grants and contracts to encourage fuil utilization of educational talent for the nursing profession.

BUREAU OF HEALTH MANPOWER EDUCATION PROGRAMS

OFFICE OF THE BUREAU DIRECTOR

TITLE: Health Manpower Opportunity Awards
DESCRIPTION: Under Health Manpower Education Initiative Awards, grants are awarded by the Office of Health Manpower Opportunity to recruit into the health professions disadvantaged students, especially those from minority groups, and students likely to practice in shortage areas.
APPROPRIATION:

FY 1972
$5,000,000

TITLE: Health Manpower Education Initiative Awards
DESCRIPTION: Under Health Manpower Education Initiative Awards, the Office of Special Programs awards grants and contracts to provide improved availability of training for health occupations in designated areas or regions to solve the most acute health manpower shortages and to relate health manpower education to changing patterns of organization and delivery.
APPROPRIATION:

FY 1972
$11,000,000

TITLE: Physician's Assistant Training
DESCRIPTION: Under Health Manpower Education Initiative Awards, the Office of Special Programs awards grants and contracts to train physician's assistants for primary ambulatory care.
APPROPRIATION:

FY 1972
$4,000,000

TITLE: Computer Technology Health Care Demonstration
DESCRIPTION: The Office of Special Programs awards grants and contracts to investigate the capabilities of computer and other technologies to analyze work done by health professionals to determine which tasks can be delegated to helpers.
APPROPRIATION:

FY 1972
$3,000,000

DIVISION OF PHYSICIAN AND HEALTH PROFESSIONS EDUCATION

TITLE: Capitation Grants to Health Professions Schools
DESCRIPTION: Grants on per-student basis to health professions schools, requiring enrollment expansion.

APPROPRIATION:	FY 1971	FY 1972
	$46,800,000	$155,200,000

TITLE: Construction of Health Professions Teaching Facilities
DESCRIPTION: Grants, loan guarantees and interest subsidies to assist in constructing or renovating health professions teaching facilities.

APPROPRIATION:	FY 1971	FY 1972
	Grants $131,600,000	$142,385,000 *

* $60,000,000 in FY 1973.

TITLE: Special Project Grants and Contracts to Health Professions Schools
DESCRIPTION: Special project grants and contracts to health professions schools to improve educational programs and increase the number of trained personnel.

APPROPRIATION:	FY 1971	FY 1972
	Grants $77,550,000 *	$53,000,000

* In 1971 included awards for financial distress purposes.

TITLE:Health Professions Student Loans
DESCRIPTION: Loans up to $3,500 a year to full-time health professions students in financial need.

APPROPRIATION:	FY 1971	FY 1972
	$25,000,000	$30,000,000

TITLE: Health Professions Scholarships
DESCRIPTION: Scholarships up to $3,500 a year to full-time health professions students in exceptional financial need.

APPROPRIATION:	FY 1971	FY 1972
	$15,500,000	$15,500,000

TITLE: Financial Distress Grants to Health Professions Schools
DESCRIPTION: Grants to assist health professions schools in serious financial difficulties.

APPROPRIATION:	FY 1972
	$20,000,000

TITLE: Family Medicine Training
DESCRIPTION: Grants to public or nonprofit private hospitals to develop and operate family medicine training programs for interns or residents.

APPROPRIATION:	FY 1972
	$5,000,000

TITLE: Grants to 2 - Year Medical Schools Converting to Degree Programs
DESCRIPTION: Payments to a two-year school of medicine converting to M.D. - degree program.

APPROPRIATION:	FY 1972
	$4,700,000

TITLE: Start - up Assistance to New Schools of Medicine, Osteopathy or Dentistry.
DESCRIPTION: Project grants to assist new schools of medicine, osteopathy or dentistry to expedite opening and assist with related costs.

APPROPRIATION:	FY 1972
	$2,580,000

TITLE: Health Professions Teaching
DESCRIPTION: Grants to health professions schools to train teaching personnel in the health professions.

APPROPRIATION:	FY 1972
	$1,000,000

DIVISION OF NURSING

TITLE: Capitation Grants to Schools of Nursing
DESCRIPTION: Grants on a per-student basis to nursing schools, requiring enrollment expansion.

APPROPRIATION:	FY 1972
	$31,500,000

TITLE: Nursing Student Loans
DESCRIPTION: Loans up to $2,500 a year to full-time or half-time nursing students.

APPROPRIATION:	FY 1971	FY 1972
	$17,110,000	$21,000,000

TITLE: Nursing Scholarships
DESCRIPTION: Scholarships up to $2,000 a year to full-time or half-time nursing students in exceptional financial need.

APPROPRIATION:	FY 1971	FY 1972
	$17,000,000	$19,500,000

TITLE: Special Project Grants and Contracts to Improve Nurse Training
DESCRIPTION: Grants and contracts to help schools or organizations improve nurse training.

APPROPRIATION:	FY 1971 *	FY 1972
	$11,350,000	$19,000,000

* Grants only.

TITLE: Construction of Nurse Training Facilities
DESCRIPTION: Grants, loan guarantees and interest subsidies to assist nursing schools to construct or renovate teaching facilities.

APPROPRIATION:	FY 1971	FY 1972
	Grants $9,500,000	$19,500,000 *

* Includes $10 million reserved until FY 73.

TITLE: Professional Nurse Traineeships
DESCRIPTION: Traineeships to assist registered nurses prepare for positions as administrators, supervisors, clinical specialists or teachers.

APPROPRIATION:	FY 1971	FY 1972
	$10,470,000	$11,500,000

TITLE: Financial Distress Grants for Nursing Schools
DESCRIPTION: Grants to assist nursing schools in financial straits.

APPROPRIATION:	FY 1971 *	FY 1972
		$10,000,000

* Authorized under Special Project Grants.

TITLE: Full Utilization of Nursing Educational Talent
DESCRIPTION: Grants and contracts to identify individuals with a potential for education in nursing and to assist them in enrolling in school and completing R.N. training.

APPROPRIATION:	FY 1971 *	FY 1972
		$2,000,000

* Contracts only.

TITLE: Nurse Scientist Graduate Training
DESCRIPTION: Grants to graduate schools of nursing to expand doctoral programs in nursing and departments of basic science and to provide stipends to R.N.'s enrolled in such programs.

APPROPRIATION:	FY 1971	FY 1972
	$700,000	$700,000

TITLE: Special Nurse Research Fellowships
DESCRIPTION: Fellowships to assist nurses in predoctoral or postdoctoral studies in preparation for research assignments.

APPROPRIATION:	FY 1971	FY 1972
	$650,000	$650,000

TITLE: Nurse Educational Research Grants and Contracts
DESCRIPTION: Educational program projects funded to improve nursing practice through scientific investigation.

APPROPRIATION:	FY 1971	FY 1972
	$2,455,000	$2,455,000

DIVISION OF ALLIED HEALTH MANPOWER

TITLE: Allied Health Professions Special Project Grants
DESCRIPTION: Grants to establish, demonstrate or develop projects to improve education opportunities in allied health professions.

APPROPRIATION:	FY 1971	FY 1972
	$4,495,000	$14,745,000

TITLE: Allied Health Professions Special Improvement Grants
DESCRIPTION: Grants to provide, maintain or improve the specialized functions of allied health professions training centers.

APPROPRIATION:	FY 1972
	$10,000,000

TITLE: Allied Health Professions Grants for Advanced Training
DESCRIPTION: Grants to train allied health professionals for positions as teachers, supervisors, administrators or specialists.

APPROPRIATION:	FY 1971	FY 1972
	$3,750,000	$3,750,000

TITLE: Operation MEDIHC (Military Experience Directed Into Health Careers)
DESCRIPTION: Operation MEDIHC is a counseling and referral service that works through resources within the States to direct into health careers former military personnel with health skills and knowledge.

APPROPRIATION:	FY 1971	FY 1972
	$217,000	$1,250,000

TITLE: Public Health Traineeships
DESCRIPTION: Traineeships to assist health personnel prepare for careers in public health.

APPROPRIATION:	FY 1971	FY 1972
	$8,400,000	$8,400,000

TITLE: Public Health School Formula Grants
DESCRIPTION: Grants to assist schools of public health provide comprehensive public health training as well as technical assistance for State and local public health programs.

APPROPRIATION:	FY 1971	FY 1972
	$5,054,000	$5,554,000

TITLE: Public Health Project Grants
DESCRIPTION: Grants to improve and expand specialized public health training.

APPROPRIATION:	FY 1971	FY 1972
	$4,517,000	$4,517,000

DIVISION OF DENTAL HEALTH

TITLE: Dental Auxiliary Utilization Training/Training in Expanded Auxiliary Management
DESCRIPTION: Grants to assist dental schools train dental students to use auxiliary workers.

APPROPRIATION:	FY 1971	FY 1972
	$3,651,000	$4,251,000

TITLE: Dental Educational Grants and Contracts
DESCRIPTION: Awards to improve research activities related to dental manpower, services and diseases.

APPROPRIATION:	FY 1971	FY 1972
	$1,319,000	$922,000

TITLE: Dental Health Research Training Grants
DESCRIPTION: Grants to assist institutions improve training opportunities for dentists and other investigators so they can conduct research in areas related to dental health.

APPROPRIATION:	FY 1971	FY 1972
	$450,000	$386,000

TITLE: Continuing Dental Education
DESCRIPTION: Grants to assist institutions improve organized programs of continuing education in dentistry.

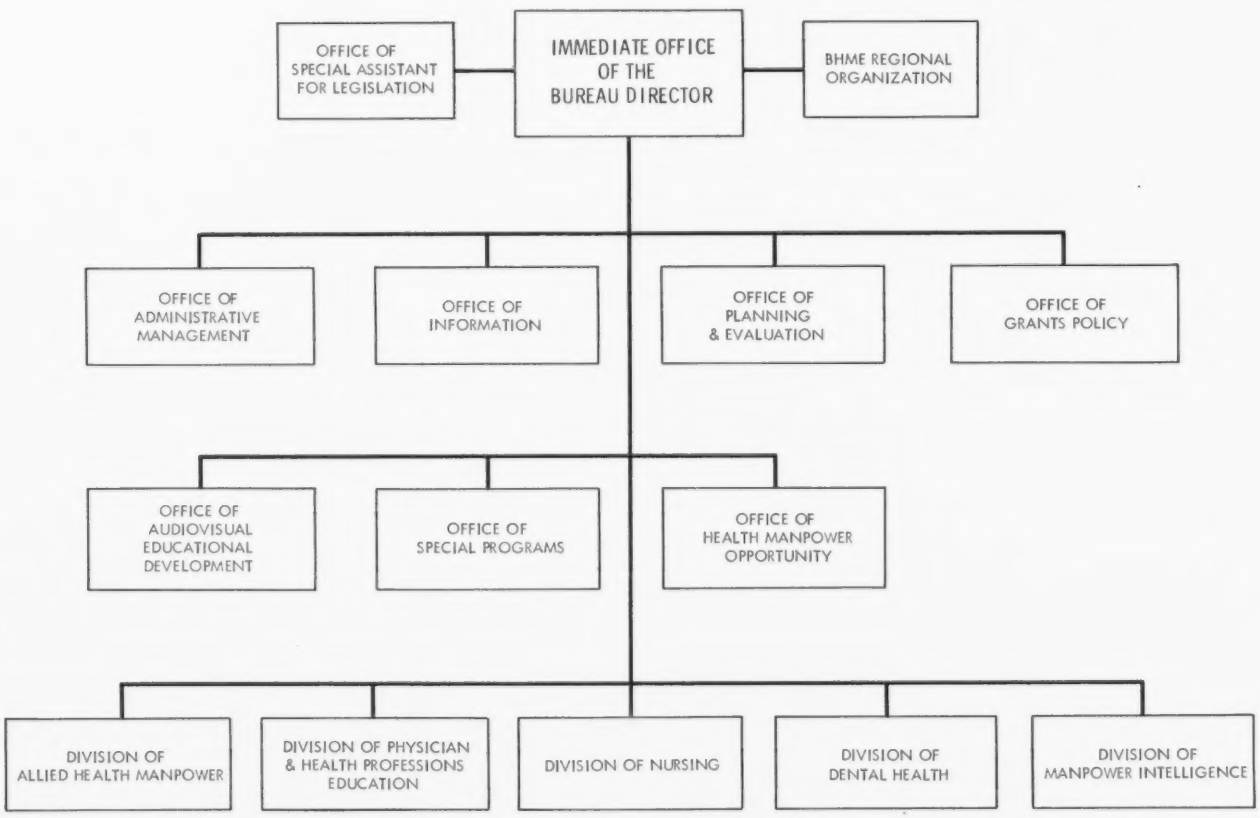
APPROPRIATION:	FY 1971	FY 1972
	$200,000	$200,000

TITLE: Dental Health Research Fellowships
DESCRIPTION: Grants to increase the number and competence of persons qualified to undertake research and provide training for research related to dental public health.

APPROPRIATION:	FY 1971	FY 1972
	$150,000	$150,000

ORGANIZATIONAL CHART

BUREAU OF HEALTH MANPOWER EDUCATION


OFFICE OF SPECIAL ASSISTANT FOR LEGISLATION
IMMEDIATE OFFICE OF THE BUREAU DIRECTOR
BHME REGIONAL ORGANIZATION
OFFICE OF ADMINISTRATIVE MANAGEMENT
OFFICE OF INFORMATION
OFFICE OF PLANNING & EVALUATION
OFFICE OF GRANTS POLICY
OFFICE OF AUDIOVISUAL EDUCATIONAL DEVELOPMENT
OFFICE OF SPECIAL PROGRAMS
OFFICE OF HEALTH MANPOWER OPPORTUNITY
DIVISION OF ALLIED HEALTH MANPOWER
DIVISION OF PHYSICIAN & HEALTH PROFESSIONS EDUCATION
DIVISION OF NURSING
DIVISION OF DENTAL HEALTH
DIVISION OF MANPOWER INTELLIGENCE

REGIONAL ORGANIZATION

The Bureau of Health Manpower Education is represented in each of the Department of Health, Education, and Welfare's 10 regional offices by an Associate Regional Director for Health Manpower.

Region	Address	States in Region
I	John Fitzgerald Kennedy Federal Building Government Center Boston, Mass. 02203	Conn., Maine, Mass., N.H., R.I., Vt.
II	Federal Building 26 Federal Plaza New York, N.Y. 10007	N.J., N.Y., P.R., V.I.
III	401 North Broad Street Philadelphia, Pa. 19108	Del., D.C., Md., Pa., Va., W.Va.
IV	Peachtree-Seventh Building 50 - 7th Street, N.E. Atlanta, Ga. 30323	Ala., Fla., Ga., Ky., Miss., N.C., S.C., Tenn.
V	300 South Wacker Drive Chicago, Ill. 60606	Ill., Ind., Minn., Mich., Ohio, Wis.
VI	1114 Commerce Street Dallas, Texas 75202	Ark., La., N.Mex. Okla., Tex.
VII	Federal Office Building 601 East 12th Street Kansas City, Mo. 64106	Iowa, Kans., Mo., Nebr.
VIII	Federal Office Building 19th and Stout Street Denver, Colo. 80202	Colo., Mont., N.Dak., S.Dak., Utah, Wyo.
IX	Federal Office Building 50 Fulton Street San Francisco, Calif. 94102	Ariz., Calif., Hawaii, Nev., Trust Territories
X	Arcade Plaza Building 1321 Second Avenue Seattle, Wash. 98101	Alaska, Idaho, Oreg., Wash.

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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service National Institutes of Health